

99905

Shears, Beverly

From: Devi, Sarvamangala
Sent: Monday, July 28, 2003 3:00 PM
To: Shears, Beverly
Subject: 10/060,521

Beverly:

Would you please perform a sequence and an interference search for a polypeptide comprising an amino acid sequence having at least 75% identity to SEQ ID NO: 2 in application 10/060,521?

Thanks.

S. DEVI, Ph.D.
AU 1645
CM1-7E15
Mailbox: CM1-7E12

CC further identifying MDR efflux pumps that may be used as drug targets to
CC increase the sensitivity of cells to antibacterial agents. Cells
CC comprising the identified pumps may be used to screen for potential
CC blockers or inhibitors of MDR pump function or gene expression.
CC

Sequence 498 AA;

Query Match 99.3%; Score 2522; DB 22; Length 498;
Best Local Similarity 99.2%; Pred. No. 5.5e-189;
Matches 494; Conservative 2; Mismatches 2; Indels 0

Qy	1	MSKIELKOLSPAYONQEVLLFPDQANITMDTNWKLGLIGRNGRGKTTLLRLLQKQLOYQE	60
Db	1	MSKIELKOLSPAYONQEAALLFPDQANITMDTNWKLGLIGRNGRGKTTLLRLLQKQLOYQE	60
Qy	61	ILHQVDFVYFPQTVAEEQOLTYVLOEVTSEFQWELERELTILNVDPVILWRPSSLGG	120
Db	61	ILHQVDFVYFPQTVAEEQOLTYVLOEVTSEFQWELERELTILNVDPVILWRPSSLGG	120
Qy	121	EKTKVLLGLLFTTEENAPFLIDEPNTNHLDLAGROQVABYLKXQKHGFILVSHDRAFPDEVV	180
Db	121	EKTKVLLGLLFTTEENAPFLIDEPNTNHLDLAGROQVABYLKXQKHGFILVSHDRAFPDEVV	180
Qy	181	DHILAIKXSQLTLYQGNFSIYEEQKCLDAPAFELAENEKIKKXVNRUKETARKKAAEWSMR	240
Db	181	DHILAIKXSQLTLYQGNFSIYEEQKCLDAPAFELAENEKIKKXVNRUKETARKKAAEWSMR	240
Qy	241	EGDKYGNAKEKXGSGAIFDTGAIGARAARVMKRSKHIOORAETOLAEKELKLDLEYIDPL	300
Db	241	EGDKYGNAKEKXGSGAIFDTGAIGARAARVMKRSKHIOORAETOLAEKELKLDLEYIDSL	300
Qy	301	SDNYOPTHKTLTVEELRLGYEKWLFAPLSPFSINAGEIVGITKXGSGKSSLIQYLLD	360
Db	301	SDNYOPTHKTLTVEELRLGYEKWLFAPLSPFSINAGEIVGITKXGSGKSSLIQYLLD	360
Qy	361	NFSGDSEGEATLHOLTTISYRYQDYEDNOGTLSSFAEKNQLDYTQFLNNRLKLGMSRAVP	420
Db	361	NFSGDSEGEATLHOLTTISYRYQDYEDNOGTLSSFAEKNQLDYTQFLNNRLKLGMSRAVP	420
Qy	421	TNRIEQMSNGQRKKYEVAKSLSQSAELYIWDPELNYLIDVFNHQOLEALILSVKPAMLVIE	480
Db	421	TNRIEQMSNGQRKKYEVAKSLSQSAELYIWDPELNYLIDVFNHQOLEALILSVKPAMLVIE	480
Qy	481	HDHAFMKXITDKKIVLKS	498
Db	481	HDHAFMKXITDKKIVLKS	498

Search completed: July 28, 2003, 15:39:59
Job time : 99 secs

SEE A1 20:2

RESULT 2

ABB47285
ID ABB47285 standard; Protein; 498 AA.

AC ABB47285;

31-JAN-2002 (first entry)

XX
DE Enterococcus faecalis polypeptide Abc23.

MDR; efflux pump; multidrug resistance; antibacterial; drug target.

OS **Enterococcus faecalis.**

PN WO200179257-A2.

25-OCT-2001.

12-APR-2001: 2001WO-US12230-

PR 14-APR-2000: 2000US-197349P.

PA (PHYT-) PHYTERA INC.

XX PI Davis DV, Rogers BL, White AC:

XX
DR
WPI: 2001-626526/72.

DR -N-PSUB; ABA82960.
XX

Determining whether a candidate nucleotide or polypeptide encodes/functions as a multidrug resistance (MDR) efflux pump comprises searching a database of nucleotide/polypeptide sequences for those with high identity to known MDR pumps -

PS Claim 10; Fig 26; 139pp; English.

CC The invention relates to determining whether a candidate nucleotide
CC (ABA82938-ABA82971) or polypeptide (AB847263-AB847296) encodes/functions
CC as a multidrug resistance (MDR) efflux pump comprising, searching a
CC database for sequences high identity known MDR efflux pumps and then
CC deleting/mutating an identified region of the DNA in a bacterial cell
CC determining whether the bacterial cell exhibits increased or decreased
CC sensitivity to an antibacterial agent. The identified pumps are useful for